

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In the Patent Application of:

STEVEN J. AND MARIANNE E. BERRY.

Serial No.: 10/604,008

Filed: June 20, 2003

For: GAS CYLINDER BASE

Group Art Unit: 3632

Examiner: Sterling, Amy J.

APPEAL BRIEF

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Commissioner for Patents
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Sir:

This is an Appeal Brief pursuant to 37 C.F.R. §41.37 in support of Applicants' appeal of the Final Rejection of the Examiner, mailed December 3, 2004, of claims 1-11, 14, 15, 17-27, 30, and 31. Each of the topics required by 37 C.F.R. §41.37 is presented herewith and is labeled appropriately.

I. REAL PARTY IN INTEREST

Applicants/Appellants Steven J. Berry and Marianne E. Berry are the real parties in interest relative to this appeal.

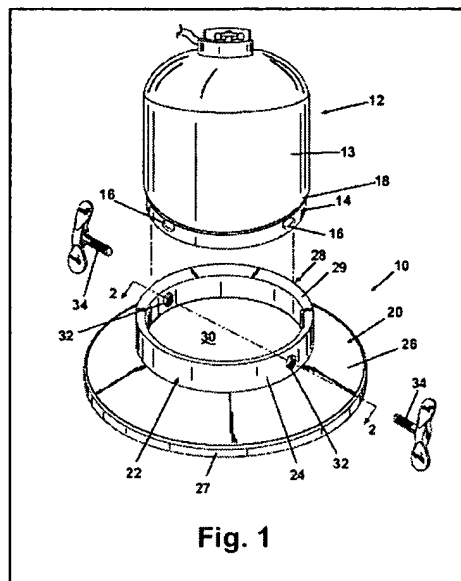
II. RELATED APPEALS AND INTERFERENCES

There are no appeals or interferences related to the present application of which Appellants or Appellants' legal representatives are aware.

Claims 1-32 were in the application as filed. Pursuant to the Office action mailed May 3, 2004, requiring an election of species, claims 12, 13, 16, 28, 29, and 32 were withdrawn without prejudice from further consideration. Claims 1-11, 14, 15, 17-27, 30, and 31, which are presented in the Appendix, are pending in the application and have been finally rejected by the Examiner. Accordingly, Appellants hereby appeal the final rejection of claims 1-11, 14, 15, 17-27, 30, and 31.

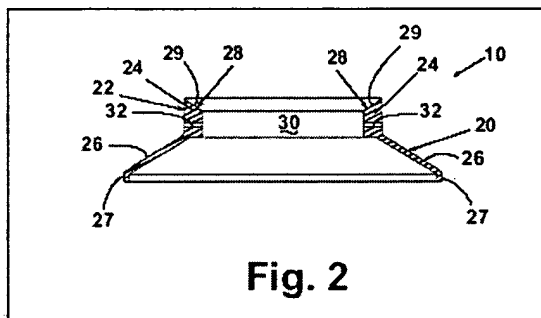
An amendment under 37 C.F.R. §1.116 was filed subsequent to final rejection in order to clarify structural limitations in claims 1, 11, and 27. The amendment was not entered by the Examiner.

The invention comprises a one-piece, circular support base which can be secured to the bottom of a gas cylinder, such as a portable propane cylinder, to support the cylinder during transportation and use, and prevent the cylinder from being inadvertently overturned. Figure 1 illustrates a conventional portable gas cylinder 12 comprising a cylinder body 13 supported on a circular base ring 14. The base ring 14 is provided with regularly-spaced circular apertures 16 extending therethrough. The lower portion of the gas cylinder body 13 is formed into a rounded bottom shoulder 18 where the side of the cylinder bottom.



As illustrated in Figures. 1 and 2, the support base 10 comprises a circular one-piece body comprising an annular outer base skirt 20 in fixed coaxial registry with an inner, annular

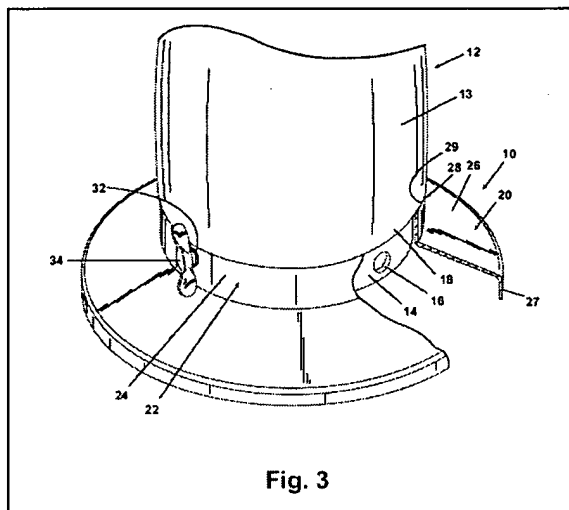
support ring 22, and having a circular aperture 30 coaxially extending therethrough. The outer base skirt 20 is in the general form of a truncated cone. The inner support ring 22 is a generally



ring-like annular structure extending upwardly from the top of the outer base skirt 20 and terminating in a chamfered lip 28 having an inwardly-inclined face 29. The inner support ring 22 has a height sufficient to elevate the base ring 14 of the gas cylinder 12 above the underlying surface on which

the support base 10 rests.

The inner support ring 22 is provided with at least one threaded aperture 32 for threadably receiving a conventional threaded fastener 34, such as a thumb screw. The fastener 34 is threaded through the threaded aperture 32 and into the circular apertures 16 for retaining



the support base 10 to the circular base ring 14 of the gas cylinder 12. In order to retain the support base 10 on the circular base ring 14 using the readily installed and removed threaded fasteners 34, the vertically-extending inner support ring 22 must be utilized.

As illustrated in Figures. 1 and 3, the inner support ring 22 is adapted to slidably receive the circular base ring 14 of a conventional portable

gas cylinder 12. The chamfered lip 28 is adapted to communicate with and support the bottom shoulder 18 of the portable gas cylinder 12, and the inclined face 29 of the chamfered lip 28 seats the cylinder 12 in generally coaxial alignment with the gas cylinder base 10. At least one threaded fastener 34 is threaded through the aperture 32 into a base ring aperture 16 to hold the gas cylinder base 10 to the gas cylinder 12. Alternatively, the threaded fastener 34 can be tightened against the base ring 14 rather than through the aperture 32 to hold the gas cylinder base 10 to a gas cylinder having a base ring without apertures. This configuration will be

particularly effective with diametrically-opposed fasteners, such as illustrated in Figure 1. The end of the fastener 34 can also be provided with a point which will "bite" into the base ring 14 as the fastener 34 is tightened against the base ring 14. As illustrated in Figure 3, when threaded fasteners 34 are used, the gas cylinder base 10 and the gas cylinder 12 form a structure possessing high lateral stability and resistance to overturning which can be easily transported as an integrated unit. *See, Published Application No. US 2004/0016855, Paragraphs [0018]-[0021]*.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. In the rejection of December 3, 2004, the Examiner rejected claims 1-5, 7-10, 17-21, and 23-26 under 35 U.S.C. §102(b) as allegedly anticipated by U.S. Patent No. 6,508,477 to Burkett. Appellants disagree with the Examiner's assertion that the Burkett reference anticipates claims 1-5, 7-10, 17-21, and 23-26.

2. In the rejection of December 3, 2004, the Examiner rejected claims 11, 14, 15, 27, 30, and 31 as obvious under 35 U.S.C. §103(a) over U.S. Patent No. 6,508,477 to Burkett. Appellant disagrees with the Examiner's assertion that the Burkett reference renders claims 11, 14, 15, 27, 30, and 31 obvious to one skilled in the art.

3. In the rejection of December 3, 2004, the Examiner rejected claims 6 and 22 as obvious under 35 U.S.C. §103(a) over U.S. Patent No. 6,508,477 to Burkett in view of U.S. Patent No. 6,709,222 to Inman, Jr. Appellants disagree with the Examiner's assertion that the Burkett and Inman, Jr. references render claims 6 and 22 obvious to one skilled in the art.

VII. ARGUMENT

1. THE INVENTIONS OF CLAIMS 1-5, 7-10, 17-21, AND 23-26 ARE NOT ANTICIPATED UNDER 35 U.S.C. §102(b) BY BURKETT '477.

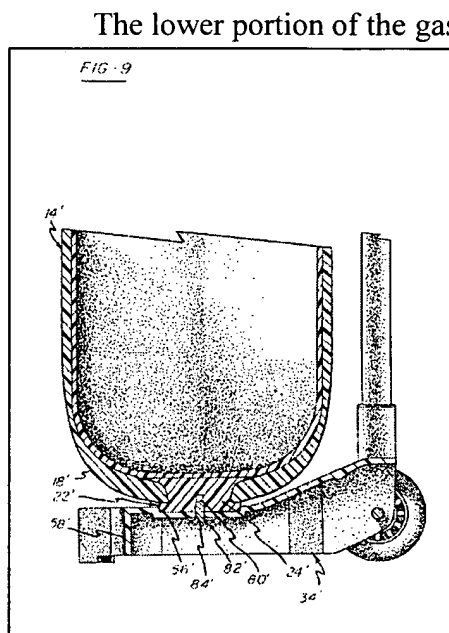
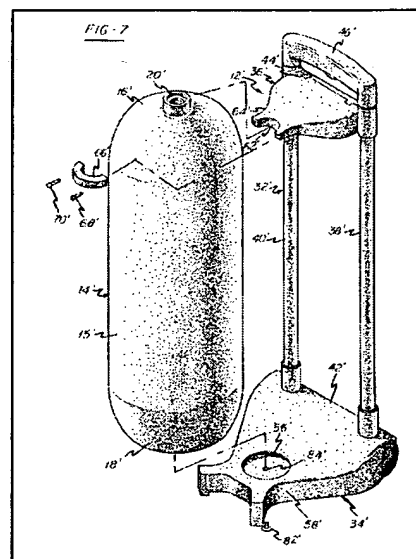
The claimed invention is not anticipated under §102 unless each and every element of the claimed invention is found in the prior art. *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 231

USPQ 81, 90 (Fed. Cir. 1986). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co., 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)*.

Claim 1 relates to a gas cylinder base. The gas cylinder base is adapted to support a gas cylinder having a base ring. The gas cylinder base comprises a base skirt and a support element extending upwardly from the base skirt. The support element is adapted to slidably receive the gas cylinder base ring.

The Examiner argues that claims 1-5, 7-10, 17-21, and 23-26 are anticipated by the embodiment shown in Figures 6-9 of Burkett '477. However, Figures 6-9 of Burkett '477 do not show each and every element of the inventions of claims 1-5, 7-10, 17-21, and 20 3-26.

Burkett '477 discloses in Figures 6-9 a gas cylinder 14' adapted to be fixedly attached to a wheeled frame 12' to form a one-piece unit. The wheeled frame 12' comprises a top horizontal member 36' joined to a bottom horizontal member 34' through a pair of tubular members 38', 40'. The tubular members 38', 40' are attached to the bottom horizontal member 34' at a proximal end 42' of the bottom member 34'.



The lower portion of the gas cylinder 14' is adapted for cooperative registry with the bottom horizontal member 34' of the wheeled frame 12' to facilitate assembly of the gas cylinder 14' to the wheeled frame 12' to form the one-piece unit. The gas cylinder 14' has at its lower end a fitting 22' comprising a solid boss 24'. A threaded opening 80' is formed coaxially in, but not through, the boss 24'. Except for the threaded opening 80', the fitting 22' is a generally solid cylindrical body. The

fitting 22' is received in a recess 56' formed in the bottom member 34' by a downwardly-depending peripheral vertical wall. The recess 56' is provided with an aperture 84' coaxially aligned with the opening 80'. The fitting 22' and recess 56' enable the gas cylinder 14' to be securely attached to the frame 12' so that the gas cylinder 14' can be readily wheeled to a preselected location for use. The fitting 22' of the gas cylinder 14' is uniquely adapted for cooperative registry with the unique configuration of the bottom horizontal member 34', i.e. the recess 56'.

Claim 1

Claim 1 requires a gas cylinder base having a base skirt, and a support element extending upwardly from the base skirt. Figures 6-9 of Burkett '477 do not disclose the base skirt and the support element extending upwardly from the base skirt required in claim 1. Indeed, Burkett '477 makes no mention of a skirt or a support element. Nevertheless, the Examiner identifies element 42' of Figure 6-9 as a base skirt, and the recess 56' as a support element. However, the Examiner ignores the requirement in claim 1 that the support element extend upwardly from the base skirt. The Examiner simply asserts that this configuration is disclosed in Burkett '477, notwithstanding the fact that Figures 6-9 clearly illustrate the Examiner's "support element" as a recess extending downwardly from the Examiner's "base skirt." (*See, e.g. Figure 7*).

Moreover, "skirt" is variously defined as "The border, rim, outer portion, extremity, or tail-end of anything.... A surface that conceals or protects the wheels or underneath of a vehicle...A rim or border; an edging." *The Oxford English Dictionary, 2d. Ed. (Clarendon Press, 1991)*. The structure, element 42', identified by the Examiner as a base skirt is not a skirt according to these definitions. If anything, the irregularly-shaped, vertical peripheral wall extending downwardly from an upper surface of the bottom member 34' and partially covering the wheels of the frame 12' most closely satisfies the definition of a skirt. (*See, Figure 7*). As illustrated in Figure 9, the recess 56' clearly does not extend upwardly from the surrounding surface, it extends downwardly. In fact, the recess 56' is completely separated from the skirt by a generally horizontal surface, and thus cannot extend from the skirt in any direction.

The Examiner offers no factual support for the assertion that the recess having a downwardly-depending peripheral vertical wall 56' extends upwardly from the base skirt 42'. Indeed, because Figures 6-9 so clearly illustrate the downward, recessed configuration of the "support element," no such factual support can be offered. In the Advisory Action mailed February 15, 2005, the Examiner states "The matter of direction could be interpreted as upwardly by starting at a point lower than the very top surface of the base skirt or that the base skirt ends before the support begins." This is a highly strained interpretation which completely ignores the ordinary meaning of the language of claim 1, particularly in light of the structure of the base skirt and support element described and illustrated in the application. What the Examiner is attempting to do is arbitrarily segment the structure illustrated in Figures 6-9 into separate components to shoehorn the dissimilar device illustrated in Figures 6-9 into claim 1. However, this completely ignores the requirement that the identical invention be shown in as complete detail as is contained in the claim. *Richardson, supra*. Figures 6-9 of Burkett '477 simply do not disclose an element of claim 1, i.e. a support element extending upwardly from a base skirt, and thus does not anticipate claim 1.

The structure described in claim 1 is clearly and fundamentally different than the structure disclosed in Figures 6-9 of Burkett '477. Burkett '477 does not disclose a support element extending upwardly from a base skirt as required in claim 1. Thus, claim 1 is not anticipated by Burkett '477 because each and every element of claim 1 is not found in Burkett '477.

Claims 2-5 and 7-10

Claims 2-5 and 7-10 depend, directly or indirectly, from claim 1. For the reasons discussed above with respect to the errors in the rejection of claim 1, claims 2-5 and 7-10 are not anticipated by Burkett '477. Nevertheless, Burkett '477 does not disclose other required elements of claims 2-5 and 7-10.

Claim 2 requires that the first lateral dimension [of the base skirt] be greater than the diameter of the gas cylinder. Nowhere in Burkett '477 is this disclosed. There is no written

description of the dimensional relationship between the gas cylinder 14 and the remaining structural elements. The figures similarly do not clearly disclose such a dimensional relationship. At best, the figures are ambiguous in this respect.

Claim 3 requires that the support element comprise at least one aperture “therethrough.” As discussed above, the Examiner’s “support element” comprises a boss 24’ with a threaded aperture 80’. However, as clearly illustrated in Figure 9, the aperture 80’ does not extend through the boss 24’. The aperture 80’ only extends partway into the boss 24’.

Claims 4 and 5 depend from claim 3 and, thus, for the same reasons, cannot be anticipated by Burkett ‘477.

Claim 7 depends from claim 5 and, thus, cannot be anticipated by Burkett ‘477. Claim 8 also depends from claim 5 and, additionally, requires a fastener with a point for engaging the base ring. Such a fastener is not disclosed in Burkett ‘477. Indeed, because the fastener in Burkett ‘477 is threaded into the gas cylinder, there is no need for a point to engage the gas cylinder. Again, the Examiner simply asserts, without any factual support, that the fastener has a point.

Claim 9 depends from claim 7 and, thus, cannot be anticipated by Burkett ‘477. Claim 10 requires that the support element comprise a continuous support ring. The Examiner’s “support element” is a recess, not a ring. Thus, claim 10 is not anticipated by Burkett ‘477.

Because each and every element of claims 2-5 and 7-10 is not found in Burkett ‘477, claims 2-5 and 7-10 are not anticipated by Burkett ‘477.

Claim 17

Independent claim 17 is essentially identical to independent claim 1, with the positive recitation of the gas cylinder having the base ring. The Examiner has presented no additional arguments in support of the rejection of claim 17. Thus, because claim 17 requires a support element extending upwardly from a base skirt, which is not disclosed in Burkett ‘477 as

discussed above with respect to claim 1, claim 17 is not anticipated by Burkett '477.

Claim 17 further requires a gas cylinder having a base ring, and a fastener that can engage the base ring of a gas cylinder, neither of which is disclosed in Burkett '477.

The gas cylinder of Burkett '477 has no base ring. The Examiner claims that the fitting 22' and boss 24' comprise a ring. However, the fitting 22' and boss 24' disclosed in Burkett '477 can in no way be construed as a ring.

"When examining claims for patentability, claims are interpreted as broadly as is reasonable and **consistent with the specification**.... 'The general rule is, of course, that terms in the claim are to be given their **ordinary and accustomed meaning**.' *In re Thrift*, 298 F.3d 1357, 1364 (Fed. Cir. 2002) (citations omitted, emphasis added).

A ring is defined as "an object having the form of a circle." *The Oxford English Dictionary*, 2d Ed. (Clarendon Press, 1991). A circle is defined as "a plane curve everywhere equidistant from a given fixed point, the center." *The American Heritage Dictionary of the English Language*, 4th Ed. (Houghton Mifflin Company, 2000). The ordinary meaning of "ring" is a circular curve circumscribing an open space extending completely through the ring, which enables the ring to be inserted over a body (such as a finger, a barrel, a napkin) with the body extending completely through the open space. The specification describes the base ring of the gas cylinder consistent with these definitions: "The base ring 14 is a generally ring-like annular structure formed of a thin strip of metal, such as steel, and fixedly attached to the cylinder body 13, such as by welding." *Application as Filed, Paragraph [0016]*.

In contrast, Burkett '477 discloses a solid cylindrical boss 24' having a threaded opening extending into, but not through, the boss 24', and having a diameter much smaller than the diameter of the boss 24'. Because the threaded opening does not extend through the cylindrical boss 24', the cylindrical boss 24' cannot constitute a ring. Simply calling the cylindrical boss 24' a "ring", as the Examiner has done, does not make it so. The Examiner is improperly stretching the definition of "ring" to include a structure that is unrecognizable as such, which is

not consistent with the specification, and ignores the ordinary and accustomed meaning of “ring.”

Because the fitting 22’ and boss 24’ do not comprise a ring as required in claim 17, Burkett ‘477 does not disclose a gas cylinder having a base ring, and thus does not disclose a gas cylinder base which can support a gas cylinder having a base ring. Since this element is not disclosed in Burkett ‘477, Burkett ‘477 does not anticipate claim 17.

Claim 17 also requires a fastener that can engage the base ring of the gas cylinder. Because Burkett ‘477 does not disclose a gas cylinder having a base ring, it does not disclose a fastener that can engage a base ring.

Claims 18-21 and 23-26

Claims 18-21 and 23-26 depend from claim 17 and are essentially identical to claims 2-5 and 7-10, respectively. For the reasons discussed above with respect to claims 2-5 and 7-10, claims 18-21 and 23-26 are not anticipated by Burkett ‘477.

Because each and every element of claims 17-21 and 23-26 is not found in Burkett ‘477, claims 17-21 and 23-26 are not anticipated by Burkett ‘477.

In view of the foregoing, claims 1-5, 7-10, 17-21, and 23-26 patentably distinguish over Burkett ‘477. The Examiner’s rejection of claims 1-5, 7-10, 17-21, and 23-26 under 35 U.S.C. §102(b) should be reversed.

2. THE INVENTIONS OF CLAIMS 11, 14, 15, 27, 30, AND 31 ARE NOT OBVIOUS UNDER 35 U.S.C. §103(a) OVER BURKETT ‘477.

The Examiner's assertion of obviousness should be rejected since the Examiner has failed to satisfy the legal requirements for a *prima facie* case of obviousness. Moreover, the Examiner's asserted combination does not reach the claimed inventions described in claims 11, 14, 15, 27, 30, and 31.

a. The Examiner has failed to satisfy the legal requirements for a *prima facie* case of obviousness.

A conclusion of obviousness must be based upon an examiner's factual findings. "The factual predicates underlying an obviousness determination include the scope and content of the prior art, the differences between the prior art and the claimed invention, and the level of ordinary skill in the art." *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998).

The examiner bears the burden of establishing a *prima facie* case of obviousness based upon the prior art. **The examiner can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the relevant art would lead that individual to combine the relevant teachings of the references.** To establish a *prima facie* case of obviousness, three basic criteria must be met: 1) There must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; 2) There must be a reasonable expectation of success; and 3) The prior art reference must teach or suggest all the claimed limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991); *In re Sang-Su Lee*, 277 F.3d 1338, 56 USPQ2d 1430 (Fed. Cir. 2000); *Ecolochem, Inc. v. Southern California Edison Company*, 277 F.3d 1361, 56 USPQ2d 1065 (Fed. Cir. 2000).

The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. 'To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.' *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985)."

As aptly stated by Judge Newman in *Sang-Su Lee*, *supra*:

...The patent examination process centers on prior art and the analysis thereof. When patentability turns on the question of obviousness, the search for an analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness. . . . “The factual inquiry whether to combine references must be thorough and searching.” [Citation omitted] It must be based on objective evidence of record. This precedent has been reinforced in myriad decisions and cannot be dispensed with.... *In re Dembiczak* 175 F.3d. 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) (“Our case law makes clear that the best defense against subtle but powerful attraction of a hindsight based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.”)

The examiner cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ2d 1780, 1783 (Fed. Cir. 1988). Combining prior art references without evidence of a suggestion, teaching, or motivation supporting the combination simply takes the inventor’s disclosure as a blueprint for piecing together the prior art to defeat patentability—the essence of hindsight. *In re Dembiczak*, 175 F.3d at 999, 50 USPQ2d at 1617. See, also, *Manual of Patent Examining Procedure* §706.02(j).

Section 706.02(j) of the Manual of Patent Examining Procedure is explicit as to what must be done to support a rejection under 35 U.S.C. §103(a).

“After indicating that the rejection is under 35 U.S.C. 103, the examiner should set forth in the Office action:

(A) the relevant teachings of the prior art relied upon, preferably with reference to the relevant column or page number(s) and line number(s) where appropriate,

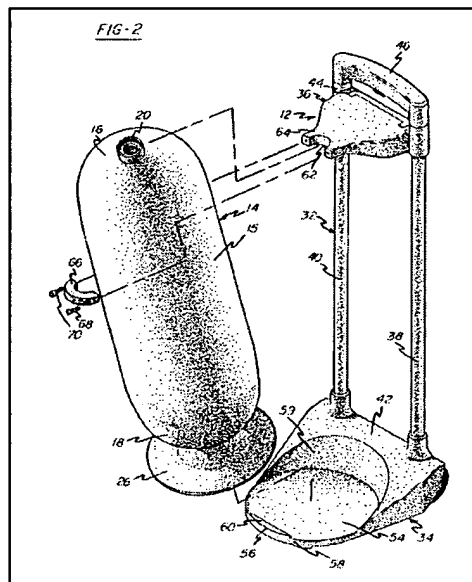
(B) the difference or differences in the claim over the applied reference(s),

(C) the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter, and

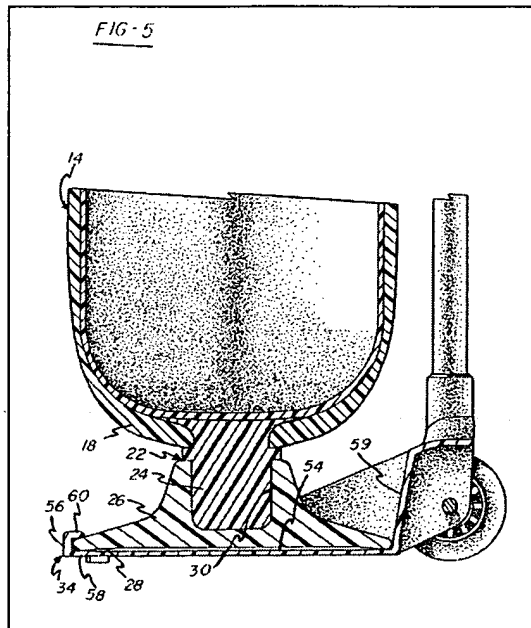
(D) an explanation why one of ordinary skill in the art at the time the invention was made would have been motivated to make the proposed modification.

If any one of the obviousness criteria is not met, then a *prima facie* case of obviousness has not been made. In the present case, the rejection fails to meet several of the criteria, making the rejection unsustainable. An application of the criteria supports this conclusion.

The Examiner asserts that claims 11, 14, 15, 27, 30, and 31 are unpatentable over Burkett '477 as applied to claims 1, 10, 17, and 26, and additionally referencing the embodiment illustrated in Figures 1-5. The Examiner concedes that the embodiment illustrated in Figures 6-9 does not teach that the support ring terminates in a radially inwardly sloped chamfered end, or that the base skirt is circular and coaxial with the support element, but asserts that these elements are illustrated in Figures 1-5. However, the Examiner presents no factual analysis of what in Burkett '477 would motivate, suggest, or teach the combination asserted by the Examiner, or why a person of ordinary skill in the art would be motivated or consider it desirable to combine the two embodiments in Burkett '477 as asserted by the Examiner.



Figures 1-5 of Burkett '477 disclose a gas cylinder 14 adapted to be fixedly attached to a wheeled frame 12 to form a one-piece unit. The wheeled frame 12 comprises a top horizontal member 36 joined to a bottom horizontal member 34 through a pair of tubular members 38, 40. The tubular members 38, 40 are attached to the bottom horizontal member 34 at a proximal end 42 of the bottom member 34. The bottom horizontal member 34 comprises a vertically extending wall 56 adjacent the distal end 58 of the bottom member 34, and a flange portion 60



The lower portion of the gas cylinder 14 is adapted for cooperative registry with the bottom horizontal member 34 of the wheeled frame 12 to facilitate assembly of the gas cylinder 14 to the

The Examiner has not identified any teaching, suggestion, or motivation in Burkett '477 for making the combination asserted by the Examiner as is required to meet the *prima facie* standard. The Examiner has provided no explanation why one of ordinary skill in the art at the time the invention was made would have been motivated to make the proposed modification. The Examiner has not identified the relevant teachings of the prior art relied upon to make the asserted combination. The Examiner is simply relying on impermissible hindsight reconstruction to craft a combination from Burkett '477 allegedly having all the limitations of claims 11, 14, 15, 27, 30, and 31.

There is no basis for making the alleged combination of the embodiment illustrated in Figures 1-5 with the embodiment illustrated in Figures 6-9. There is nothing in Burkett '477 that would suggest their combination. Burkett '477 discloses two embodiments that are clearly identified in the patent as separate and distinct. Each embodiment is equally capable of a satisfactory integration of gas cylinder to wheeled frame without incorporating any element from the other. Each embodiment is uniquely adapted for cooperative registry with the unique configuration of the bottom horizontal member to which it is attached. Thus, there is no incentive to combine the two embodiments in the manner asserted by the Examiner. There is no perceived need, and consequently no perceived motivation in Burkett '477, for combining the distinct embodiments in Figures 1-5 and 6-9.

Claims 11 and 27

i. Nothing in Burkett '477 would teach, suggest, or motivate the combination of the distinct embodiments in Figures 1-5 and 6-9.

The Examiner asserts that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the gas base with a chamfered edge, based upon an asserted combination of the two embodiments illustrated in Figures 1-5 and 6-9, respectively, in Burkett '477. However, the Examiner offers no support for this conclusion, and has not identified any teaching, suggestion, or motivation in Burkett '477 for combining the two embodiments in this fashion.

Applicant's chamfered lip is used to engage and support the rounded bottom shoulder of the portable gas cylinder, and aid in the coaxial seating of the gas cylinder and the cylinder base ring in the gas cylinder base. *See, Published Application No. US2004/0016855, ¶[0021]*. In contrast, Burkett '477 discloses the insertion of a boss into a recess to attach the gas cylinder to the gas base. In both embodiments of Burkett '477, the rounded bottom of the gas cylinder does not contact the support structure, which eliminates any benefit of a chamfered edge as recited in claims 11 and 27, and thus obviates any motivation for combining both embodiments.

There is simply nothing with respect to either embodiment in Burkett '477 to suggest the use of a radially-inwardly sloping chamfered end, and the Examiner has pointed to no such suggestion. A radially-inwardly sloping chamfered end would serve no purpose in either embodiment. The Examiner is simply engaging in impermissible hindsight reconstruction using Applicants' disclosure as a blueprint to supply elements missing from each embodiment of Burkett '477 in order to assert the obviousness of claims 11 and 27.

ii. **The Examiner's asserted combination does not reach the inventions of claims 11 and 27.**

Assuming, *arguendo*, that the asserted combination is tenable, it would still fail to meet the invention disclosed in claim 11 and claim 27 because the combination is lacking a necessary element of the claimed invention. Claims 11 and 27 depend from claims 1 and 10, and 17 and 26, respectively, and thus require a support ring extending upwardly from a base skirt, and the support ring terminating in a radially-inwardly sloping chamfered end.

As discussed previously, the embodiment illustrated in Figures 6-9 of Burkett '477 does not have a support ring extending upwardly from a base skirt. The Examiner argues that the embodiment illustrated in Figures 1-5, however, shows "a gas circular cylinder base (54) which has a support ring (upper part of 26) which terminates in a radially inwardly sloped chamfered end..., the support ring having a circular base skirt (lower part of 26) which is coaxial with a support element." Contrary to the Examiner's assertion, the combination does not meet the invention of claims 11 and 27, because it would disclose nothing more than a gas cylinder base having an outwardly-directed rounded shoulder. This is not the invention of claims 11 and 27.

The asserted combination does not have a radially-inwardly sloping chamfered end as required by claims 11 and 27. The Application, including Figures 1 and 2 of the Application, describes an embodiment of the invention comprising a chamfered end 28 of a support element 22 having a face 29 which slopes radially inwardly. The face 29 engages and supports the rounded bottom shoulder 18 of the portable gas cylinder 12, and aids in the coaxial seating of

the gas cylinder 12 and the cylinder base ring 14 in the gas cylinder base 10.

The Examiner's assertion that the upper part of element 26 of Burkett '477 terminates in a radially inwardly sloping chamfered end is patently inaccurate. This structure is not disclosed in Burkett '477. The rounded shoulder of the upper part of element 26 is not an inwardly sloping chamfered end; it is outwardly sloping. Furthermore, the Examiner concedes that chamfered means "beveled or inclined or slanted." The rounded shoulder is not chamfered, i.e. not beveled, inclined, or slanted, because it is rounded. The Examiner's argument constitutes nothing more than broad conclusory statements which, standing alone, are not evidence. *Dembiczak, supra*.

Claim 27 also requires a gas cylinder having a base ring and a gas cylinder base comprising a support ring adapted to slidably receive the base ring of the gas cylinder. As described previously, the gas cylinder illustrated in Figures 6-9 is not provided with a base ring. The gas cylinder illustrated in Figures 1-5 also fails to disclose a gas cylinder having a base ring. Nowhere in Burkett '477 is there any disclosure of the embodiments in Figures 1-5 and 6-9 being adapted to engage a gas cylinder having a base ring, and neither embodiment appears to be capable of doing so. Thus, the combination of the two embodiments illustrated in Figures 1-5 and 6-9 fails to meet the invention of claim 27 because the combination fails to disclose a gas cylinder having a base ring and a support ring which can slidably engage the base ring.

Claims 14 and 30

i. Nothing in Burkett '477 would teach, suggest, or motivate the combination of the distinct embodiments in Figures 1-5 and 6-9.

As discussed previously, there is nothing in Burkett '477 that would teach, suggest, or motivate a person of ordinary skill in the art to combine the distinct embodiments in Figures 1-5 and 6-9 in such a way as to arrive at the inventions described in claims 14 and 30.

ii. **The Examiner's asserted combination does not reach the inventions of claims 14 and 30.**

Claims 14 and 30 require that the base skirt be circular. The Examiner asserts that it would have been obvious from the teachings of the embodiment illustrated in Figures 1-5 to make the gas base circular. Claims 14 and 30 depend from claims 1 and 17, respectively. Thus, claims 14 and 30 incorporate all limitations of claims 1 and 17. As discussed above, claims 1 and 17 require a support ring extending upwardly from a base skirt, the support ring terminating in a radially-inwardly sloping chamfered end, neither of which is disclosed in Burkett '477. Because the asserted combination of both embodiments does not reach the invention of claims 1 and 17, the asserted combination does not reach the invention of claims 14 and 30.

Claims 15 and 31

i. **Nothing in Burkett '477 would teach, suggest, or motivate the combination of the distinct embodiments in Figures 1-5 and 6-9.**

As discussed previously, there is nothing in Burkett '477 that would teach, suggest, or motivate a person of ordinary skill in the art to combine the distinct embodiments in Figures 1-5 and 6-9 in such a way as to arrive at the inventions described in claims 15 and 31.

ii. **The Examiner's asserted combination does not reach the inventions of claims 15 and 31.**

Claims 15 and 31 require the support element be coaxial with the base skirt. This is illustrated in Figures 1 and 2 in which the support element 22 is coaxial with the base skirt 20. The Examiner asserts that it would have been obvious from the teachings of the embodiment illustrated in Figures 1-5 to make the gas base coaxial. Claims 15 and 31 depend from claims 1 and 17, respectively. Thus, claims 15 and 31 incorporate all limitations of claims 1 and 17. As discussed above, claims 1 and 17 require a support ring extending upwardly from a base skirt, the support ring terminating in a radially-inwardly sloping chamfered end, neither of

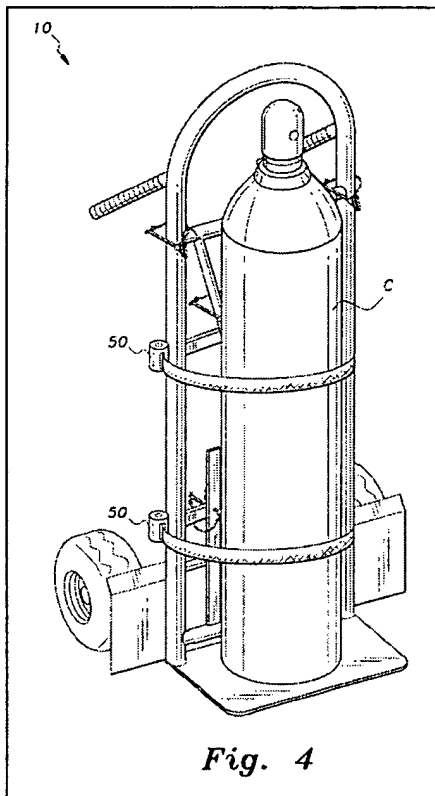
which is disclosed in Burkett '477. Thus, the asserted combination does not reach the invention of claims 15 and 31.

In view of the foregoing, claims 11, 14, 15, 27, 30, and 31 patentably distinguish over Burkett '477. The Examiner's rejection of claims 11, 14, 15, 27, 30, and 31 as obvious under 35 U.S.C. §103(a) should be reversed.

3. THE INVENTIONS OF CLAIMS 6 AND 22 ARE NOT OBVIOUS UNDER 35 U.S.C. §103(a) OVER BURKETT '477 IN VIEW OF U.S. PATENT NO. 6,709,222 TO INMAN, JR.

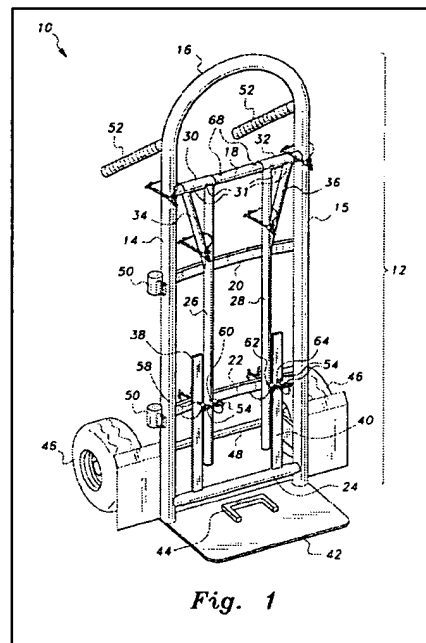
The Examiner's assertion of obviousness should be rejected since the Examiner has failed to satisfy the legal requirements for a *prima facie* case of obviousness. Moreover, the Examiner's asserted combination does not reach the claimed inventions described in claims 6 and 22.

i. Nothing in Burkett '477 or Inman '222 would



teach, suggest, or motivate their combination in the manner asserted by the Examiner.

Inman '222 discloses a hand truck 10 having support elements 26, 28, such as arms and forks, for supporting various items on the hand truck. The support elements 26, 28 can be configured in selected positions and retained in place by a system of pins 54. See, Figure 1. The pins 54 are identified in Inman '222 as spring clip type pins, wire lock



pins, detent ring pins, and “any other similar method of securing the arms and forks in position.” *Col. 3, ln. 15-20*. Nowhere in Inman ‘222 is there any reference to thumb screws. One of the embodiments described in Inman ‘222 is illustrated in Figure 4 and comprises a plurality of straps 50 for holding a gas cylinder C to the hand truck 10.

Burkett ‘477 discloses a wheeled frame 12’ having a configuration virtually identical to a hand truck. The Examiner has not identified any teaching, suggestion, or motivation in either Burkett ‘477 or Inman ‘222 for making the combination asserted by the Examiner as is required to meet the *prima facie* standard. The Examiner has provided no explanation why one of ordinary skill in the art at the time the invention was made would have been motivated to make the proposed modification. The Examiner has not identified the relevant teachings of the prior art relied upon to make the asserted combination.

The Examiner is simply relying on impermissible hindsight reconstruction to craft a combination from Burkett ‘477 and Inman ‘222 allegedly having all the limitations of claims 6 and 22. However, a person of ordinary skill in the art would not be motivated to look to a patent disclosing a hand truck to combine with a patent already disclosing a similar hand truck. Furthermore, the thumb screw in claims 6 and 22 is utilized to secure the gas cylinder base to the gas cylinder base ring. The threaded fastener in Burkett ‘477 is utilized to secure the gas cylinder 14’ to the wheeled frame 12’. The Examiner has offered no explanation why one looking to secure a gas cylinder base to a gas cylinder base ring would look to either Burkett ‘477 or Inman ‘222 to do so.

ii. **The Examiner’s asserted combination does not reach the inventions of claims 6 and 22.**

Even if the combination were tenable, it still would not meet the inventions of claims 6 and 22. Claims 6 and 22 depend from claims 1 and 17, respectively. Thus, claims 6 and 22 incorporate all limitations of claims 1 and 17. As discussed above, claims 1 and 17 require a support ring extending upwardly from a base skirt, the support ring terminating in a radially-inwardly sloping chamfered end, neither of which is disclosed in Burkett ‘477 or Inman ‘222.

The Examiner asserts that Inman '222 illustrates the use of thumb screws to support a gas cylinder which, in combination with Burkett '477, renders Applicants' gas cylinder base obvious. However, the gas cylinder C in Inman '222 is secured to the hand truck 10 by straps 50, not pins. Furthermore, the pins 54 are not used to secure any item being transported, including the gas cylinder, by the hand truck 10. Rather, the pins 54 are used to secure the support elements 26, 28 in either a horizontal or vertical position on the hand truck 10. The elements identified in Figures 1-5 of Inman '222 with the numeral 54 may have an appearance similar to a thumb screw. However, Inman '222 makes it clear that these elements are pins, not thumb screws. Thus, no combination of Burkett '477 and Inman '222 discloses the invention of claims 6 and 22.

In view of the foregoing, claims 6 and 22 patentably distinguish over the alleged combination of Burkett '477 in view of Inman '222. The Examiner's rejection of claims 6 and 22 as obvious under 35 U.S.C. §103(a) should be reversed.

CONCLUSION

In view of the foregoing, it is submitted that the continuing rejection of claims 1-11, 14, 15, 17-27, 30, and 31 is improper and should not be sustained. Therefore, a reversal of the rejection of claims 1-11, 14, 15, 17-27, 30, and 31 is respectfully requested.

Respectfully submitted,
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Dated: March 3, 2005

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VIII. CLAIMS APPENDIX

Claim 1. (Original) A gas cylinder base for supporting in an upright position thereon a gas cylinder having a base ring comprising at least one base ring aperture therethrough, comprising:

a base skirt having a first lateral dimension, and

a support element extending upwardly from the base skirt, defining a second lateral dimension less than the first lateral dimension, and adapted to slidably receive the base ring of the gas cylinder, the support element comprising at least one fastener for attaching the gas cylinder base to the gas cylinder,

wherein the at least one fastener is adapted to engage the base ring to attach the gas cylinder base to the gas cylinder.

Claim 2. (Original) The gas cylinder base of claim 1 wherein the first lateral dimension is greater than the diameter of the gas cylinder.

Claim 3. (Original) The gas cylinder base of claim 1 wherein the support element further comprises at least one aperture therethrough.

Claim 4. (Original) The gas cylinder base of claim 3 wherein the at least one aperture is threaded.

Claim 5. (Original) The gas cylinder base of claim 4 wherein the at least one fastener is threaded.

Claim 6. (Original) The gas cylinder base of claim 5 wherein the fastener is a thumb screw.

Claim 7. (Original) The gas cylinder base of claim 5 wherein the at least one fastener is threadably inserted into the at least one aperture.

Claim 8. (Original) The gas cylinder base of claim 5 wherein the at least one fastener is provided with a point at an end thereof for engaging the base ring.

Claim 9. (Original) The gas cylinder base of claim 7 wherein the at least one fastener is insertable into at least one base ring aperture.

Claim 10. (Original) The gas cylinder base of claim 1 wherein the support element comprises a continuous support ring.

Claim 11. (Original) The gas cylinder base of claim 10 wherein the support ring terminates in a radially-inwardly sloping chamfered end.

Claim 12. (Withdrawn without prejudice) The gas cylinder base of claim 1 wherein the support element comprises a plurality of discontinuous lugs.

Claim 13. (Withdrawn without prejudice) The gas cylinder base of claim 12 wherein each lug terminates in a radially-inwardly sloping chamfered end.

Claim 14. (Original) The gas cylinder base of claim 1 wherein the base skirt is circular.

Claim 15. (Original) The gas cylinder base of claim 1 wherein the support element is coaxial with the base skirt.

Claim 16. (Withdrawn without prejudice) The gas cylinder base of claim 1 wherein the

support element comprises at least one detent.

Claim 17. (Original) A gas cylinder support assembly comprising:

a gas cylinder having a base ring attached thereto comprising at least one base ring aperture therethrough, and

a gas cylinder base comprising

a base skirt having a first lateral dimension, and

a support element extending upwardly from the base skirt, defining a second lateral dimension less than the first lateral dimension, and adapted to slidably receive the base ring of the gas cylinder, the support element comprising at least one fastener for attaching the gas cylinder base to the gas cylinder,

wherein the at least one fastener is adapted to engage the base ring to attach the gas cylinder base to the gas cylinder.

Claim 18. (Original) The gas cylinder support assembly of claim 17 wherein the diameter of the base skirt is greater than the diameter of the gas cylinder.

Claim 19. (Original) The gas cylinder support assembly of claim 17 wherein the support element further comprises at least one aperture therethrough.

Claim 20. (Original) The gas cylinder support assembly of claim 19 wherein the at least one aperture is threaded.

Claim 21. (Original) The gas cylinder support assembly of claim 20 wherein the at least one fastener is threaded.

Claim 22. (Original) The gas cylinder support assembly of claim 21 wherein the fastener is a thumb screw.

Claim 23. (Original) The gas cylinder support assembly of claim 21 wherein the at least one fastener is threadably inserted into the at least one aperture.

Claim 24. (Original) The gas cylinder support assembly of claim 21 wherein the at least one fastener is provided with a point at an end thereof for engaging the base ring.

Claim 25. (Original) The gas cylinder support assembly of claim 24 wherein the at least one fastener is inserted into the at least one base ring aperture.

Claim 26. (Original) The gas cylinder support assembly of claim 17 wherein the support element comprises a continuous support ring.

Claim 27. (Original) The gas cylinder support assembly of claim 26 wherein the support ring terminates in a radially-inwardly sloping chamfered end.

Claim 28. (Withdrawn without prejudice) The gas cylinder support assembly of claim 17 wherein the support element comprises a plurality of discontinuous lugs.

Claim 29. (Withdrawn without prejudice) The gas cylinder base of claim 28 wherein each lug terminates in a radially-inwardly sloping chamfered end.

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Claim 30. (Original) The gas cylinder base of claim 17 wherein the base skirt is circular.

Claim 31. (Original) The gas cylinder base of claim 17 wherein the support element is coaxial with the base skirt.

Claim 32. (Withdrawn without prejudice) The gas cylinder base of claim 17 wherein the support element comprises at least one detent.